

Amendments to the Claims under Revised 37 C.F.R. § 1.121

Claim 1 (previously amended): An isolated nucleic acid molecule comprising a nucleotide sequence:

- (a) as set forth in SEQ ID NO: 4;
- (b) of the DNA insert in ATCC Deposit No. PTA-976;
- (c) encoding the polypeptide as set forth in SEQ ID NO: 5;
- (d) that hybridizes to the complement of the nucleotide sequence of any of (a) - (c) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences; or
- (e) complementary to the nucleotide sequence of any of (a) - (d).

Claim 2 (currently amended): An isolated nucleic acid molecule comprising:

C  
(a) a nucleotide sequence encoding a polypeptide ~~which~~ that is at least about 70 percent identical to the polypeptide as set forth in SEQ ID NO: 5, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

~~— (b) — a nucleotide sequence encoding an allelic variant of the nucleotide sequence as set forth in SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of (a);~~

~~(e)(b)~~ a region of the nucleotide sequence of SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of (a) or (b) encoding a polypeptide fragment of at least about 25 amino acid residues, wherein the polypeptide fragment, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein, or is antigenic;

~~(d)(c)~~ a region of the nucleotide sequence of SEQ ID NO: 4, the nucleotide sequence of the DNA insert in ATCC Deposit No. PTA-976, or the nucleotide sequence of ~~any of either~~ (a) or (b) comprising a fragment of at least about 16 nucleotides;

~~(e)~~(d) a nucleotide sequence that hybridizes to the complement of the nucleotide sequence of any of (a) - ~~(d)~~(c) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences; or

~~(f)~~(e) a nucleotide sequence complementary to the nucleotide sequence of any of (a) - ~~(e)~~(d).

Claim 3 (currently amended): An isolated nucleic acid molecule comprising a nucleotide sequence:

(a) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one conservative amino acid substitution, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

C (b) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one amino acid insertion, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

(c) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one amino acid deletion, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

(d) encoding a polypeptide as set forth in SEQ ID NO: 5 which has a C- and/or N-terminal truncation, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

(e) encoding a polypeptide as set forth in SEQ ID NO: 5 with at least one modification that is a conservative amino acid substitution, an amino acid insertion, an amino acid deletion, C-terminal truncation, or N-terminal truncation, wherein the encoded polypeptide, ~~upon exposure to mammalian cells, causes~~ is capable of specifically binding an interferon receptor, thereby resulting in an increase in cellular protein the tyrosine phosphorylation of a Janus kinase protein;

- (f) of any of (a) - (e) comprising a fragment of at least about 16 nucleotides;
- (g) that hybridizes to the complement of the nucleotide sequence of any of (a) - (f) under hybridization conditions allowing no more than a 21% mismatch between the nucleotide sequences;-or
- (h) complementary to the nucleotide sequence of any of (a) - (g).

Claim 4 (original): A vector comprising the nucleic acid molecule of any of Claims 1, 2, or 3.

Claim 5 (original): A host cell comprising the vector of Claim 4.

Claim 6 (original): The host cell of Claim 5 that is a eukaryotic cell.

Claim 7 (original): The host cell of Claim 5 that is a prokaryotic cell.

Claim 8 (original): A process of producing an IFN-L polypeptide comprising culturing the host cell of Claim 5 under suitable conditions to express the polypeptide, and optionally isolating the polypeptide from the culture.

Claim 9 (canceled)

Claim 10 (original): The process of Claim 8, wherein the nucleic acid molecule comprises promoter DNA other than the promoter DNA for the native IFN-L polypeptide operatively linked to the DNA encoding the IFN-L polypeptide.

Claim 11 (original): The isolated nucleic acid molecule according to Claim 2, wherein the percent identity is determined using a computer program selected from the group consisting of GAP, BLASTN, FASTA, BLASTA, BLASTX, BestFit, and the Smith-Waterman algorithm.

Claims 12-42 (canceled)

Claim 43 (original): A composition comprising a nucleic acid molecule of any of Claims 1, 2, or 3 and a pharmaceutically acceptable formulation agent.

C | Claim 44 (original): The composition of Claim 43, wherein said nucleic acid molecule is contained in a viral vector.

Claim 45 (original): A viral vector comprising a nucleic acid molecule of any of Claims 1, 2, or 3.

Claim 46-56 (canceled)

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